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EXAMINER  
JOHNSTONE, A

ART UNIT	PAPER NUMBER
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UNITED STATES DEPARTMENT OF COMMERCE  
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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Paper No. 31

Application Number: 08/353942

Filing Date: 12/12/94

Appellant(s): Thomas J. Segatta, et al.

Bruce J. Hendricks  
For Appellant

**OCT 08 1997**

**EXAMINER'S ANSWER**

This is in response to appellant's brief on appeal filed June 2, 1997.

**(1) *Real Party in Interest***

A statement identifying the real party in interest is contained in the brief.

**(2) *Related Appeals and Interferences***

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

**(3) *Status of Claims***

The statement of the status of the claims contained in the brief is correct.

**(4) *Status of Amendments After Final***

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The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) *Summary of Invention***

The summary of invention contained in the brief is correct.

**(6) *Issues***

The appellant's statement of the issues in the brief is correct.

**(7) *Grouping of Claims***

The rejection of claims stand or fall together because appellant's brief does not include a statement that this grouping of claims does not stand or fall together and reasons in support thereof. See 37 CFR 1.192(c)(7).

**(8) *Claims Appealed***

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(9) *Prior Art of Record***

The following is a listing of the prior art of record relied upon in the rejection of claims under appeal.

5,174,838	Sandstrom et al.	12-1992
0 410 311	Stevens et al. (Europe)	1-1991
0 461 329	Borowczak et al. (Europe)	12-1991
1-135847	Bridgestone Tire KK (Japan)	5-1989

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4,824,899	Yasuda	4-1989
57-212239	Yokohama Gomu KK (Japan)	12-1982

Brief summary of the prior art

A. Sandstrom et al. '838 discloses a tire and a method of making a tire which are different from the conventional steel cord carcass radial tire and method only in that the claimed rubber composition is provided in the base tread component of the tire to increase the component's green strength and uncured viscosity.

B. EP '311, EP '329 and JP '847 are examples of prior art tire rubber compositions which can be used to from the tread base component and/or the bead apex component of a tire.

C. Yasuda discloses a tire and a method of making a tire which are different from the conventional steel cord carcass radial tire and method only in that a particular rubber composition is provide in the bead <sup>filler</sup> ~~filler~~ (apex) whose rubber component is an unspecified <sup>blend</sup> ~~blend~~ of natural rubber and synthetic diene rubber.

D. JP '239 discloses a tire and a method of making a tire which are different from the conventional steel cord carcass radial tire only in that a particular rubber composition is provided in the bead filler (apex) whose rubber component is an unspecified blend of natural rubber and liquid diene rubber.

**(10) New Prior Art**

No new prior art has been applied in this examiner's answer.

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**(11) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-2, 4-6, 8-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sandstrom et al. '838 in view of EP '311, EP '329, and JP '847.

Sandstrom et al. '838 discloses a tire and a method of making a tire which are different from the conventional steel cord carcass radial tire and method in that a particular rubber composition is provided in the base tread component of the tire to increase the component's green strength and uncured viscosity, the rubber composition meeting the claimed composition limitations (col. 1 line 11 - col. 3 line 55, col. 5 line 19 - col. 8 line 9). However, it is well known in the tire art that tread rubber compositions can also be used for the bead apex, as evidenced by EP '311 (abstract), EP '329 (abstract), and JP '847 (abstract) for example, and that increasing uncured viscosity and green strength in <sup>tire</sup> ~~their~~ rubber compositions is desirable for any tire component (Sandstrom et al. '838 col. 2 lines 19-24 for example).

It would therefore have been obvious to one of ordinary skill in the art to use the Sandstrom et al. '838 rubber composition in the bead apex of the conventional steel cord carcass radial tire in order to increase the bead apex uncured viscosity and green strength.

Claims 1-2, 4-6 and 8-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yasuda in view of Sandstrom et al. '838.

Yasuda discloses a tire and a method of making a tire which are different from the conventional steel cord carcass radial tire and method in that a particular rubber composition is

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provided in the bead filler (apex) comprising 100 parts by weight of a blend of natural rubber and not more than 50% synthetic diene rubber such as a <sup>polybutadiene</sup> ~~polybutadiene~~ rubber (entire document).

As discussed above, it is well known to increase uncured viscosity and green strength in such tire rubber components by using trans 1, 4- polybutadiene in the rubber blend, as evidenced by Sandstrom et al. '838 (col. 1, line 65 - column 2, line 24) for example, and Sandstrom et al. '838 discloses one such rubber blend meeting the claimed composition limitations (col. 1 line 11 - col. 3 line 55, col. 5 line 19 - col. 8 line 9).

It would therefore have been obvious to one of ordinary skill in the art to use the Sandstrom et al. '838 rubber blend as the rubber blend in the Yasuda bead filler (apex) in the conventional steel cord carcass radial tire and method in order to increase the bead apex uncured viscosity and green strength.

Claims 1-2, 4-6 and 8-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP '239 in view of Sandstrom et al. '838.

JP '239 discloses a tire and a method of making a tire which are different from the conventional steel cord carcass radial tire and method in that a particular rubber composition is provided in the bead filler (apex) comprising 100 parts by weight of a rubber <sup>blend</sup> ~~blend~~ of 70-95 parts by weight natural rubber and 5-30 parts by weight of a liquid diene rubber (abstract) which may be polybutadiene (p. 2 lower left hand black lines 11-20, determined through oral translation).

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As discussed above, it is well known to increase uncured viscosity and green strength in such tire rubber components by using trans 1, 4 - ~~polybutadiene~~ <sup>polybutadiene</sup> in the rubber blend, as evidenced by Sandstrom et al. '838 (col. 1 line 65 - col. 2 line 24) for example, and Sandstrom et al. '838 discloses one such ~~rubber blend~~ <sup>trans 1,4 - polybutadiene</sup> meeting the claimed composition limitations (col. 1 line 11 - col. 3 line 55, col. 5 line 19 - col. 8 line 9).

It would therefore have been obvious to one of ordinary skill in the art to use the ~~rubber blend~~ <sup>trans 1,4 - polybutadiene</sup> as the ~~rubber blend~~ <sup>liquid diene rubber</sup> in the JP '239 bead filler (apex) in the conventional steel carcass radial tire and method in order to increase the bead apex uncured viscosity and green strength.

**(12) New Ground of Rejection**

This examiner's answer does not contain any new ground of rejection.

**(13) Response to argument**

Appellants first argue that there is no certainty that the Sandstrom et al. '838 rubber composition would work effectively in the bead apex of a conventional steel cord carcass radial tire, however the art clearly shows that one of ordinary skill in the art would have a reasonable expectation of success as set forth in the first rejection contrary to appellants' arguments.

Appellants next argue with respect to the second and third rejections that the claimed composition properties would not be met by the combinations proposed by the examiner, however the claimed properties are of the trans 1, 4 - polybutadiene which are clearly disclosed in Sandstrom et al. '838 contrary to appellants' arguments. Appellants also argue

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that there is no motivation to combine, however such motivation is clearly set forth in the rejections contrary to appellants' arguments.

~~For the above reasons, it is believed that the rejections should be sustained.~~

Respectfully submitted,

Adrienne Johnstone/om  
September 4, 1997

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